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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,898	01/11/2002	Takashi Ueda	10921.110US01	7265

7590

02/03/2003

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EXAMINER

NGUYEN, DILINH P

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/043,898

Applicant(s)

UEDA ET AL.

Examiner

DiLinh Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohn et al. (U.S. Pat. 6245259) in view of Nagai et al. (JP 04196601).

Hohn et al. disclose a semiconductor device (fig. 5, column 9, lines 14-23) comprising:

- a first lead 2 having an inner portion;
  - a semiconductor chip 1 mounted on the inner portion of the first lead;
  - a second lead 3 having an inner portion electrically connected to the semiconductor chip; and
  - a resin package 10 for sealing the semiconductor chip together with the inner portions of the first and second leads;
- wherein at least the semiconductor chip is coated with a coating film 4 (fig. 5, column 9, lines 14-15).

Hohn et al. fail to disclose the coating film formed of amorphous fluororesin.

Nagai et al. disclose the semiconductor device comprising: a coating film 7 (fig. 3) formed of amorphous fluororesin. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of

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Hohn et al. to provide less dielectric loss utilizing advantages such as low loss and low dispersion by using an amorphous fluororesin film for the semiconductor device, as shown by Nagai et al.

- Regarding claim 3, Nagai et al. disclose the amorphous fluororesin is polytetrafluoroethylene (PTFE).
- Regarding claim 5, Hohn et al. disclose the semiconductor chip is an LED chip (column 5, lines 10-12 and column 9, lines 20-23).
- Regarding claim 6, Hohn et al. disclose that the resin package is formed of a transparent resin (column 9, lines 18-22).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hohn et al. (U.S. Pat. 6245259) in view of Nagai et al. (JP 04196601) and further in view of Manteghi (U.S. Pat. 6046075).

Hohn et al. and Nagai et al. fail to disclose the coating film also covering the wire and the inner portions of the first and second lead.

Manteghi discloses a semiconductor device (fig. 3, column 3, lines 35 et seq.) comprising:

a semiconductor chip 10;

a coating film 25 covering a wire 16; and coating film 26 covering the inner portions of the first lead 12 and second leads 22 (fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Hohn et al. and Nagai et al. to prevent electrical short circuits in the integrated circuit package, as shown by Manteghi.

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4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hohn et al. (U.S. Pat. 6245259) in view of Nagai et al. (JP 04196601) and further in view of Kadokura (U.S. Pat. 5170009).

Hohn et al. and Nagai et al. fail to disclose the coating film has a thickness of 5-50  $\mu\text{m}$ .

Kadokura discloses a semiconductor device comprising: a coating layer has a thickness of 20  $\mu\text{m}$  (column 13, lines 63-64) to provide an exterior coating layer with superior coating layer properties. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Hohn et al. and Nagai et al. to provide an exterior coating layer with superior coating layer properties, as shown by Kakokura.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DiLinh Nguyen whose telephone number is (703) 305-6983. The examiner can normally be reached on 8:00AM - 6:00PM (M-F).

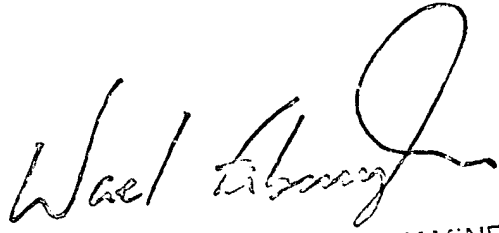
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (703) 308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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January 21, 2003

  
SUPERVISORY PRIMARY EXAMINER  
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